

***FlyBy Math™* Alignment**
Priority Academic Student Skills
Process Standards

Process Standard 1: Problem Solving

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| 1. Use problem-solving approaches (e.g., act out situations, represent problems with drawings and lists, use concrete, pictorial, graphical, oral, written, and/or algebraic models, understand a problem, devise a plan, carry out the plan, look back) | <i>FlyBy Math™</i> Activities --Use tables, graphs, and equations to solve aircraft conflict problems. |
| 2. Formulate problems from everyday and mathematical situations (e.g., how many forks are needed?, how many students are absent?, how can we share/divide these cookies?, how many different ways can we find to compare these fractions?). | --Apply mathematics to predict and analyze aircraft conflicts and validate through experimentation. |
| 3. Develop, test, and apply strategies to solve a variety of routine and nonroutine problems (e.g., look for patterns, make a table, make a problem simpler, process of elimination, trial and error). | --Use tables, graphs, and equations to solve aircraft conflict problems. |

Process Standard 2: Communication

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| 1. Express mathematical ideas coherently and clearly to peers, teachers, and others (e.g., with verbal ideas, models or manipulatives, pictures, or symbols). | <i>FlyBy Math™</i> Activities --Predict outcomes and explain results of mathematical models and experiments. |
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Process Standard 3: Reasoning

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| 1. Explain mathematical situations using patterns and relationships (e.g., identify patterns in situations, represent patterns in a variety of ways, extend patterns to connect with more general cases). | <i>FlyBy Math™</i> Activities --Predict outcomes and explain results of mathematical models and experiments. --Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system. |
| 3. Make predictions and draw conclusions about mathematical ideas and concepts. Predictions become conjectures and conclusions become more logical as students mature mathematically. | --Predict outcomes and explain results of mathematical models and experiments. |

Process Standard 4: Connections

4. Use mathematical strategies to solve problems that relate to other curriculum areas and the real world (e.g., use a timeline to sequence events, use symmetry in art work, explore fractions in quilt designs and to describe pizza slices).

***FlyBy Math™* Activities**

--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

Process Standard 5: Representation

1. Create and use a variety of representations appropriately and with flexibility to organize, record, and communicate mathematical ideas (e.g., dramatizations, manipulatives, drawings, diagrams, tables, graphs, symbolic representations).

***FlyBy Math™* Activities**

--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.

--Choose among tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

2. Use representations to model and interpret physical, social, and mathematical situations (e.g., counters, pictures, tally marks, number sentences, geometric models; translate between diagrams, tables, charts, graphs).

--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.